Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (currently amended) A method for manufacturing a medical device, comprising the steps of:

providing a core member having a proximal region and a distal region;

disposing a polymer jacket over the distal region of the core member, the polymer jacket having a substantially smooth outer surface;

winding a coil over the polymer jacket, wherein the coil is wound under tension over the polymer jacket; and

heating the polymer jacket so that the coil moves inward into the polymer jacket, relieving tension within the coil and wicking a portion of the polymer jacket between adjacent windings of the coil, providing an outer surface of the polymer jacket relative to the coil in the final medical device that has desirable flexibility characteristics;

wherein the final medical device is manufactured to include an outermost surface having a helical ridge extending around a circumference of the outermost surface formed at least in part by the coil.

2. (original) The method of claim 1, wherein the polymer jacket includes a thermoplastic material and wherein the step of disposing the polymer jacket over the distal region of the core member includes disposing a thermoplastic polymer jacket over the distal region of the core member.

3. (currently amended) A method for manufacturing a medical device, comprising the steps of:

providing a core member having a proximal region and a distal region;

disposing a polymer jacket over the distal region of the core member, the polymer jacket having a substantially smooth outer surface;

winding a coil over the polymer jacket, wherein the coil is wound under tension over the polymer jacket;

heating the polymer jacket so that tension within the coil is relieved and the outer surface of the polymer jacket wicks between adjacent windings of the coil, providing an outer surface of the polymer jacket relative to the coil in the final medical device that has desirable flexibility characteristics; and

wherein the coil includes a fluorocarbon material and wherein the step of winding a coil over the polymer jacket includes winding the coil that includes a fluorocarbon material over the polymer jacket;

wherein the final medical device is manufactured to include an outermost surface having a helical ridge extending around a circumference of the outermost surface formed at least in part by the coil.

4. (currently amended) A method for manufacturing a medical device, comprising the steps of:

providing a core member having a proximal region and a distal region;

disposing a polymer jacket over the distal region of the core member, the polymer jacket having a substantially smooth outer surface;

winding a coil over the polymer jacket, wherein the coil is wound under tension over the polymer jacket;

heating the polymer jacket so that tension within the coil is relieved and the outer surface of the polymer jacket wicks between adjacent windings of the coil, providing an outer surface of the polymer jacket relative to the coil in the final medical device that has desirable flexibility characteristics; and

wherein the coil includes a central metallic core material and an outer coating surrounding the central metallic core material, and wherein the step of winding a coil over the polymer jacket includes winding the coil that includes a central metallic core material and an outer coating surrounding the central metallic core material over the polymer jacket.

5. (original) The method of claim 4, wherein the outer coating includes a fluorocarbon material.

6. (previously presented) The method of claim 1, wherein the step of heating the jacket so that the coil moves inward into the polymer jacket, relieving tension within the coil and wicking a portion of the polymer jacket between adjacent windings of the coil includes embedding the coil within the jacket.

7. (currently amended) A method for manufacturing a guidewire, comprising the steps of:

providing a core member having a proximal region and a distal region;

disposing a jacket having an outer surface over the distal region of the core member;

disposing a coil over the outer surface of the jacket; and

embedding the coil into the outer surface of the jacket in a manner that alters a shape of the outer surface of the jacket so that the outer surface of the jacket wicks outward between adjacent windings of the coil, providing an outer surface of the jacket relative to the coil in the final guidewire that has desirable flexibility characteristics;

wherein the guidewire is manufactured to include an outermost surface having a helical ridge extending around a circumference of the outermost surface formed at least in part by the coil.

8. (currently amended) A method for manufacturing a guidewire, comprising the steps of:

providing a core member having a proximal region and a distal region;

disposing a jacket having an outer surface over the distal region of the core member;

disposing a coil over the outer surface of the jacket;

embedding the coil into the outer surface of the jacket in a manner that alters a shape of the outer surface of the jacket so that the outer surface of the jacket wicks outward between adjacent windings of the coil, providing an outer surface of the jacket relative to the coil in the final guidewire that has desirable flexibility characteristics; and

wherein the step of disposing a coil over the jacket includes winding the coil under tension about the outer surface of the jacket;

wherein the guidewire is manufactured to include an outermost surface having a helical ridge extending around a circumference of the outermost surface formed at least in part by the coil.

9. (currently amended) A method for manufacturing a guidewire, comprising the steps of:

providing a core member having a proximal region and a distal region;

disposing a jacket having an outer surface over the distal region of the core member;

disposing a coil over the outer surface of the jacket;

embedding the coil into the outer surface of the jacket in a manner that alters a shape of the outer surface of the jacket so that the outer surface of the jacket wicks outward between adjacent windings of the coil, providing an outer surface of the jacket relative to the coil in the final guidewire that has desirable flexibility characteristics;

wherein the step of disposing a coil over the jacket includes winding the coil under tension about the outer surface of the jacket; and

wherein the step of embedding the coil within the jacket includes relieving the tension within the coil;

wherein the guidewire is manufactured to include an outermost surface having a helical ridge extending around a circumference of the outermost surface formed at least in part by the coil.

10. (previously presented) The method of claim 7, wherein the step of disposing a coil over the outer surface of the jacket includes disposing the coil over a proximal section of the jacket.

11. (original) The method of claim 10, further comprising the step of disposing a covering over a distal section of the jacket.

12. (original) The method of claim 7, further comprising the step of disposing a covering over the coil.

13-20. (cancelled)

21. (currently amended) A method for manufacturing a guidewire, comprising the steps of:

providing a core member having a proximal region and a distal region;

disposing a thermoplastic jacket having an outer surface over the distal region of the core member;

disposing a coil under tension about the outer surface of the jacket, the coil including a fluorocarbon material; and

heating the thermoplastic jacket so that tension of the coil is relieved and the coil embeds within the jacket;

wherein the guidewire is manufactured to include an outermost surface having a helical ridge extending around a circumference of the outermost surface formed at least in part by the coil.

22. (currently amended) A method for manufacturing a guidewire, comprising the steps of:

providing a core member having a proximal region and a distal region;

disposing a thermoplastic jacket having an outer surface over the distal region of the core member, the jacket having a proximal section and a distal section;

disposing a coil under tension about the proximal section of the jacket, the coil including a fluorocarbon material;

heating the thermoplastic jacket so that tension of the coil is relieved and the coil embeds within the jacket; and

disposing a coating over the distal section of the jacket;

wherein the guidewire is manufactured to include an outermost surface having a helical ridge extending around a circumference of the outermost surface formed at least in part by the coil.

23. (cancelled)

24. (previously presented) The method of claim 3, wherein the coil moves inward into the polymer jacket, thereby altering a shape of the outer surface of the polymer jacket.

25. (previously presented) The method of claim 4, wherein the coil moves inward into the polymer jacket, thereby altering a shape of the outer surface of the polymer jacket.

26. (previously presented) The method of claim 7, wherein the step of disposing the coil over the outer surface of the jacket includes winding the coil under tension about the outer surface of the jacket; and

wherein during the step of embedding the coil into the outer surface of the jacket, the coil moves radially inward into the jacket, relieving tension within the coil and wicking a portion of the jacket outward between adjacent windings of the coil.

27. (previously presented) The method of claim 7, wherein the coil includes a central core material and an outer coating surrounding the central core material.

28. (previously presented) The method of claim 8, wherein the coil includes a central core material and an outer coating surrounding the central core material.

29. (previously presented) The method of claim 9, wherein the coil includes a central core material and an outer coating surrounding the central core material.

30. (previously presented) The method of claim 21, wherein during the step of heating the thermoplastic jacket, the coil moves inward into the thermoplastic jacket, altering a shape of the outer surface of the thermoplastic jacket.

31. (previously presented) The method of claim 22, wherein during the step of heating the thermoplastic jacket, the coil moves inward into the thermoplastic jacket, altering a shape of the outer surface of the thermoplastic jacket.

32. (new) The method of claim 27, wherein the central core material is a metallic material.

33. (new) The method of claim 28, wherein the central core material is a metallic material.

34. (new) The method of claim 29, wherein the central core material is a metallic material.